

AC NO: 39-1A

DAVE: 3/5/70



ADVISORY CIRCULAR

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

SUBJECT: JIG FIXTURES; REPLACEMENT OF WING ATTACH ANGLES
AND DOUBLERS ON DOUGLAS DC-3 SERIES AIRCRAFT,
AIRWORTHINESS DIRECTIVE 66-18-2

1. PURPOSE. This circular describes methods of determining that jig fixtures used in the replacement of the subject attach angles and doublers meet the requirements of Airworthiness Directive 66-18-2.
 2. CANCELLATION. Advisory Circular 39-1, dated 8/1/63, is cancelled.
 3. GENERAL. AD 66-18-2 specifies that Douglas jig fixtures, or their equivalent (that are designed and built for the specific purpose of installation of the new heavier attach angles and doublers on DC-3 series aircraft), shall be utilized in the AD compliance.
 4. ACTION. The use of **accurate** jig fixtures in compliance with the AD is of utmost importance. The determination that satisfactory jigs are utilized may be accomplished in accordance with the following:
 - a. Obtain jig fixtures, Douglas P/N A652-5110506-1-1F2 and P/N A652-5110506-1F2 or Douglas P/N C652-5110500-101-1F1 and P/N C652-5110500-101-1-1F1, manufactured by the Douglas Aircraft Company, or
 - b. Jig fixtures of other manufacture may be forwarded to Douglas Aircraft Company for checking against DACO master tooling, or
 - c. Authorized persons (appropriately rated certificated mechanics, repair stations, air carriers, or commercial operators) complying with the AD may make the determination that jig fixtures are DACO equivalent. For this purpose, facilities and equipment should be available for checking the accuracy of these fixtures, particularly in the following critical areas:
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- (1) Face Alignment. The vertical face of the jig fixture which will come in contact with the outer wing or center section attachment surfaces should be smooth and in a straight undeviating plane from leading to trailing edge and from top to bottom of the attach angle and doubler area.
- (2) Rigidity. The jig should be of such rugged construction that, when bolted to the outer wing or center section for the purpose of installing replacement parts, it should not be possible to pull the jig fixture out of the straight plane alignment specified in (1) above.
- (3) Bolthole Location. A Douglas manufactured template (which may be obtained from the Product Support Division of DACO) or an equivalent template should be used for determining bolt hole location.
5. PRECAUTION. For continued accurate results, jig fixtures should be carefully stored to avoid warpage or other damage. Prior to each subsequent use, the jig fixtures should be checked to be sure that original accuracy has been retained.

Edward C. Hodson
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astg Flight Standards Service

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